



## ABSTRACT

The present invention provides spheroidal particles of coal slag, and methods of making the spheroidal particles. One method of the invention includes delivering a  
5 feedstock of irregularly shaped particles of coal fly ash or coal slag to a drop tube, dropping the irregularly shaped particles into the drop tube in a manner such that the irregularly shaped particles flow in a substantially vertical downward path as individualized particles, and heating the irregularly shaped particles to cause at least the outer surface of the irregularly shaped particles to melt and form spheroidal particles  
10 due to surface tension at the outer surface. The spheroidal particles typically have a diameter in the range of about 0.001 to 5 mm, and comprise  $\text{SiO}_2$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{FeO}$ ,  $\text{Na}_2\text{O}$ , and  $\text{K}_2\text{O}$ .